

ENGINEERING REPORT FOR A PERMIT APPLICATION TO
CONSTRUCT AND OPERATE A SOLID WASTE MANAGEMENT FACILITY

SUBMITTED TO:
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION

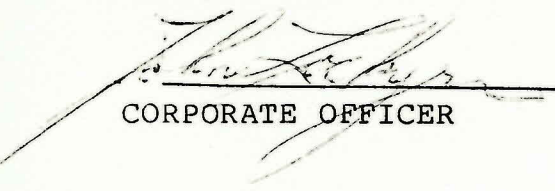
PREPARED FOR:
DEUTSCH RELAYS, INC.
65 DALY ROAD
EAST NORTHPORT, NEW YORK 11731

JUL 13 9 27 AM '83
ENVIRONMENTAL PROTECTION
AGENCY
NEW YORK, N.Y. 10001

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MAY 1983

DEUTSCH RELAYS, INC.


CORPORATE OFFICER

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1.0 INTRODUCTION

Deutsch Relays, Inc. is a manufacturer of relays used in the electronics industry. A variety of components used in the manufacture of relays are cleaned, plated and/or surface treated at this facility. These processes generate the waste materials listed in Section 3.0 of this Report. Deutsch Relays, Inc. owns and operates an on-site industrial wastewater treatment system. This system is used to treat the acid/alkali and cyanide rinsewaters generated by the plating processes. The sludge generated by the treatment system and all other waste materials generated at this facility are held for hauling by a licensed industrial waste scavenger.

The facility employs 350 personnel on a one 8-hour shift, 5-day work week with 30 people working a part-time evening shift. The plating processes, a vital part of the production operations, are operated by six full time personnel.

This Engineering Report was prepared by Donnelly Engineering, St. James, New York, as part of the complete Permit Application to Construct and Operate a Solid Waste Management Facility. This Report is submitted on behalf of Deutsch Relays, Inc. to New York State Dept. of Environmental Conservation (NYSDEC) in accordance with Part 360, "Solid Waste Management Facilities", Title 6 of the Official Compilation of Codes, Rules and Regulations (6NYCRR Part 360).

2.0 FACILITY OWNERSHIP TRANSFER

This facility is a corporate ownership under the official title of Deutsch Relays, Inc. With submittal of this Engineering Report Permit Application, Deutsch Relays, Inc., is so advised that transfer of ownership or operations of this facility during its operating life shall not take place prior to receiving written approval from the New York State Dept. of Environmental Conservation.

3.0 GENERAL WASTE ANALYSIS

The wastes generated at Deutsch Relays, Inc., include, but are not exclusively limited to, the following materials:

A) Treated effluent from the industrial wastewater treatment system discharged under the jurisdiction of the State Pollution Discharge Elimination System (SPDES).

B) Metal hydroxide sludges generated from the chemical treatment of the wastewater from the cleaning, plating, and surface treating processes.

C) Spent "Plating Department" concentrates.

D) Waste oil, freon and acetone.

E) Acid-nitrogen and cyanide-nitrogen wastewater.

Prior to start-up of the wastewater treatment system, the untreated wastewater will be used to adjust this system to operate at the design specifications. This untreated wastewater will not be retested prior to one year duration from date of start-up unless the process operations generating this wastewater have changed in such a manner to significantly change the composition of the wastewater. The

treated effluent discharged from the wastewater treatment system will be analyzed. in accordance with a schedule set by the NYSDEC in the SPDES Permit, but not less than one analysis per year.

All materials which are to be held for hauling by an approved scavenger will undergo a one time analysis by Deutsch Relays, to determine the chemical composition of these wastes. The chemical composition of each waste will be assumed to remain approximately constant unless a change in the process procedures of the waste generating operations occurs. In the event of such a change, a new analysis of each waste will be taken. The specific analyses are presented in the table below:

TYPE WASTE

ANALYSES PARAMETERS

Freon	Odor & visual
Acetone	Odor & visual
Cyanide-Nitrogen	Gas chromatography, Cyanide, pH
Acid-Nitrogen	Gas chromatography, pH
Waste Oil	Visual
Sludge (wastewater)	Copper, Nickel, pH, visual

Deutsch Relays will maintain a Waste Analysis Plan which will be kept in Facility Operating Record.

4.0 SECURITY

Deutsch Relays, Inc. does, to the best of their ability, prevent unknowing entry of unauthorized personnel into the active portions of the facility. A security crew guards against unauthorized entry to the facility continuously, 24-hours per day, 7-days per week. The security system at this facility includes video cameras and monitors which scan inside and outside the facility. A chain link fence, 6-foot high with locked entrance gates, surrounds the entire facility. All process areas are equipped with steel doors which will always be locked during non-operating hours. During operating hours, authorized facility personnel, identified by badges, prevent unauthorized personnel from entering the active portions of the facility. The underground waste storage tanks will be equipped with a bolted manway which will deny unauthorized personnel access into the tank. Signs with the legend, "DANGER-UNAUTHORIZED PERSONNEL KEEP OUT", will be posted at each entrance to the active portions of the facility and also at other locations which could present a hazard to unknowledgeable personnel. These signs will be printed in accordance with Section 360.8(c)(1)(iii)(c).

5.0 GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE OR INCOMPATIBLE WASTES

Deutsch Relays, Inc. will take all precautions necessary to prevent accidental ignition or reaction of ignitable or reactive waste. All incompatible waste will be segregated as required. All ignitable and reactive waste will be separated and protected from sources of ignition or reaction. Ignitable, reactive or incompatible wastes will be placed at least 50-feet from the facility's property line. NO SMOKING signs will be conspicuously placed wherever there is a hazard from ignitable or reactive wastes. Flammable and combustible liquid storage shall be in compliance with the National Fire Protection Association, NFPA 30, Flammable and Combustible Liquids Code.

6.0 PERSONNEL TRAINING

Facility personnel will complete a training program to insure that they are able to respond effectively to all emergencies. The training program is outlined as follows:

6.1 TRAINING CURRICULUM:

A) Emergency Response Procedures:

- 1) Contingency Plan and Emergency Procedures Implementation;
- 2) Emergency Equipment;
- 3) Emergency Systems:
 - a) Procedures for using, inspecting, repairing and replacing facility emergency and monitoring equipment;
 - b) Location and operation of wastewater feed cut-off systems (isolation valves, pump shut-offs, etc.);
 - c) Activation of fire & burglar communications or alarm systems;
 - d) Emergency procedures for fire & explosions;
 - e) Emergency procedures for groundwater contamination;
 - f) Emergency shutdown procedures.

B) Hazardous Waste Management:

- 1) Inspection of drum, tank & storage areas.
- 2) Waste material transfer procedures.
- 3) Waste analysis requirements.
- 4) Hazardous waste manifest filing.
- 5) Waste compatibility assurance procedures.
- 6) Recordkeeping.

6.2 TRAINING SCHEDULE

A) Employees will receive instruction within six months of the date of employment or assignment to the facility.

B) Employees will not work in unsupervised positions until they have completed their training.

C) Personnel will receive an annual review of emergency response and hazardous waste management procedures.

6.3 TRAINING RECORDS

A) The following records will be kept at the facility:

- 1) List of job titles and employee names for each position at the facility.
- 2) Written list of job descriptions for each position including the requisite skill, education and other qualifications necessary for the position. A written description of the introductory training and contingency training necessary for each position will be included.
- 3) A record of the training or job experience given to each employee.

B) Training records on current personnel will be kept until closure is completed. Training records for former employees will be kept for three years from the date the employee last worked at the facility.

7.0 FACILITY OPERATIONS

Deutsch Relays, Inc. will take all precautionary measures necessary to minimize the possibility of a fire or explosion or any unplanned release of hazardous or toxic waste into the environment. These measures include, but are not limited to, the following:

A) Proper inspection and maintenance of all equipment including process safety, fire and emergency equipment.

B) Inspection, supervision and updating of all operating procedures.

C) All pertinent areas are designed for spill prevention and containment.

D) Procedures for material handling shall be written to minimize potential for spills.

7.1 REQUIRED EMERGENCY EQUIPMENT

Deutsch Relays, Inc., has installed all equipment necessary to facilitate an immediate reaction to all types of emergency situations. This equipment includes, but is not limited to, the following:

- A) An internal communication system and an alarm system which is capable of providing immediate emergency instruction to facility personnel.
- B) A telephone at scene of operations which can be used for summoning emergency assistance from all Local and State emergency response departments.
- C) Fixed and portable fire extinguishing and control equipment.
- D) Portable exhaust blowers.
- E) Adequate supply of water for fire extinguishing.

- F) Container handling equipment (fork lift, handtrucks).
- G) Pumps and hoses compatible with materials to be transferred.
- H) Self contained breathing apparatus (SCBA)
- I) Fire blankets
- J) Stretchers
- K) Protective clothing: gloves, face mask, boots.
- L) Emergency electric power generator.

7.2 TESTING AND MAINTENANCE OF EQUIPMENT

All facility communications, alarm systems, fire protection equipment and all other emergency equipment will be maintained and tested on a regular basis to assure their proper operation in an emergency situation (See Section 5.0 for schedule).

7.3 ACCESS TO COMMUNICATIONS OR ALARM SYSTEMS

Deutsch Relays, Inc., will install a communication and/or alarm device in each area where hazardous waste is to be handled or stored. A telephone will be close for use by a lone employee in the event of an emergency situation.

7.4 REQUIRED AISLE SPACE

The layout of all equipment and drum storage areas at this facility provides sufficient aisle space for movement of personnel and emergency equipment in the event of an emergency and in order to facilitate inspections.

7.5 CONTAINERS - USE AND MANAGEMENT

The following container management procedures will be practiced at the facility.

- A) Container storage areas will be inspected weekly to identify leaking or deteriorated containers.
- B) Waste material stored in leaking or deteriorated containers will immediately be transferred to containers in good condition.
- C) Material will be stored in containers of construction compatible with the stored waste. The material must not react with the storage container.
- D) Containers will always be closed during storage and will be inspected for evidence of pressure buildup, i.e. bulging and fuming or bubbling at cap.

E) Containers must not be opened, handled or stored in any manner which may rupture the container or cause it to leak.

F) Incompatible wastes, or incompatible wastes and materials must not be placed in the same container.

G) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material.

H) The volume of waste stored in a storage area shall not exceed the spill containment volume of the area.

I) Containers holding ignitable or reactive wastes must be located at least 50-feet from the property line.

J) The date upon which each period of waste accumulation begins must be clearly labeled, marked and visible on the container.

K) Prior to off-site transporting, the waste must be packaged in containers in accordance with applicable Department of Transportation (DOT) Regulations (49 CFR Parts 173, 178 and 179).

L) Prior to transporting the waste off-site, the containers must be labeled in accordance with applicable DOT Regulations (49 CFR Part 72).

M) Prior to transporting the waste off-site, each container must be marked as follows:

"HAZARDOUS WASTE - Federal Law prohibits improper disposal. If found, contact the nearest Police Department or Public Safety Authority or the U.S. Environmental Protection Agency."

Generator's Name:

Manifest Document Number:

7.6 TANKS - GENERAL OPERATION

The following tank operating procedures will be practiced at the facility:

A) Waste will be stored in tanks of material of construction compatible with the stored waste. The waste must not react with the storage tank wall material.

B) Uncovered tanks containing hazardous waste will be equipped with a secondary containment structure with a minimum capacity of 110% of the volume of the tank. Any tank which is not equipped with a containment structure will be operated to ensure that at least 60cm. of the total tank height is freeboard above normal operating level.

C) All hazardous waste containing tanks which are continuously fed will be equipped with a waste feed cut-off system.

D) All hazardous waste containing tanks will have their contents analyzed in accordance with Subparagraph 360.8(c)(1)(ii) of this Part. Subparagraph 360.8(c)(1)(ii) requires that a detailed chemical and physical analysis of a representative sample of the waste be obtained. The analysis must provide all the information necessary to treat, store or disposal of the waste. In addition, a waste analysis will take place whenever storage of hazardous material substantially different from the previous material is proposed, or the process generating the hazardous waste to be stored in the tank substantially changes from the previous process (see Section 3.0).

E) Tanks and tank storage areas will be inspected "daily" for the following items:

- 1) Correct operation of discharge control equipment.
- 2) Data gathered from monitoring equipment.
- 3) Level of waste in each waste containing tank.
- 4) Foaming from vents.

Tanks and tank storage areas will be inspected "weekly" for the following items:

- 5) Corrosion of, or leakage from, the tank structure and its fixtures:
- 6) Integrity of construction materials of spill

6) Integrity of construction materials of spill containment structures and the general condition of the immediate surrounding area.

F) At closure of the facility, Deutsch Relays, Inc. will remove all hazardous waste and hazardous waste residues from tank and related equipment and structures. See the Closure Plan of this facility for details.

G) Incompatible wastes will not be placed in the same tank.

H) Hazardous waste will not be placed in an unwashed tank that previously held an incompatible waste and material.

8.0 GENERAL INSPECTION REQUIREMENTS

In accordance with the requirements of Subparagraph 360.8(c)(1)(iv) of this Part, Deutsch Relays, Inc. will develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that are important to preventing, determining or responding to environmental or human health hazards. This schedule will include the frequency of inspection of each item listed and will identify the types of problems which are sought during the inspection. This schedule will be kept at the facility at all times.

Deutsch Relays, Inc. will remedy any deterioration or malfunction of equipment or structures which the inspection reveals. An Inspection Log will be kept by the facility for at least three years from the date of the latest entry. At a minimum, this Inspection Log must include the date and time of the inspection, name of the inspector, observations made, and the date and nature of any repairs or other remedial actions.

The procedure for inspection will be structured as follows. Weekly, a designated employee, trained to inspect and maintain safety and emergency equipment, will inspect the following equipment for the corresponding items listed.

- 1) Portable Fire Extinguishers: pressurization level; proper mounting; trigger integrity.

- 2) Emergency Lighting: battery charge indicator; test bulb operation; automatic and manual switch operation.
- 3) Communication Devices: proper operation and audibility by test.
- 4) Emergency Egress Routes: clear aisles; proper illumination of EXIT signs.
- 5) Drum Storage Area: inspect for proper container use and management as per Section 8.5.
- 6) Tank Storage Area: inspect for proper tank operation as per Section 8.6.
- 7) Wastewater Treatment System: test alarm function; test annunciator panel lights, particularly the sludge storage and other high level alarms.
- 8) Portable exhaust blowers: proper operation, identification as to which blowers are suitable for flammable vapors, accessibility.
- 9) Fork-lift: proper operation, proper maintenance (as per manufacturer).

10) Hand trucks: proper operation.

11) Pumps and Hoses: proper operation, integrity of materials and fittings, identification as to waste compatibility, tangles and kinks in hoses.

12) Self contained breathing apparatus: pressurization level, accessibility.

13) Emergency Electric Power: fuel level, proper operation.

The following equipment will be checked daily by the designated employee:

1) Spill Containment Curbs (Outdoor Drum Storage Area, Plating Shop): visual inspection for cracks or deterioration.

2) Collection Trench (Plating Shop): visual inspection for cracks and deterioration. Inspect structural integrity of grating over trench.

3) Security Equipment: security alarms tested for operation; insure drum storage area fence is locked and not damaged; insure all facility doors and perimeter fence gates are locked during hours of facility shutdown.

The fire sprinkler and alarm system is tested in accordance with the schedule set forth by the Town of Huntington Fire Codes and/or Property Damage Insurance Carrier.

9.0 ARRANGEMENTS WITH LOCAL AND STATE AUTHORITIES

Deutsch Relays, Inc., will make all the necessary arrangements with the Local and State authorities. These authorities are listed in the "Contingency Plan and Emergency Procedures".

10.0 MANIFEST AND RECORDKEEPING SYSTEM

10.1 OPERATING RECORD

An operating record file will be maintained at the facility at all times. The file will include the information listed below:

A) Records describing the type and quantity of each hazardous waste received and the method and date of treatment, storage or disposal. The hazardous waste manifest file will form the bulk of this file.

B) A plot plan of the facility locating the hazardous waste storage areas within the facility.

C) Waste Analysis Plan.

D) Records and results of waste analyses and trial tests.

E) Summary reports and details of all incidents that require implementing the Contingency Plan.

F) Records with written comments of inspections in an Inspection Log.

G) Records of waste monitoring testing or analytic data.

H) Closure Plan for the facility.

I) Contingency Plan and Emergency Procedures Report.

10.2 AVAILABILITY, RETENTION & DISPOSITION OF RECORDS

A) All records and files will be made available at any time to a duly designated representative of the Commissioner of the New York State Dept. of Environmental Conservation.

B) Upon closure of the facility, a copy of the records of waste disposal locations and quantities will be submitted to the Commissioner, (in duplicate), and to the Suffolk County Clerk's Office.

10.3 ANNUAL REPORT

This facility will submit two copies of an annual report to the Commissioner by March 1st of each year. The report will include the items listed below:

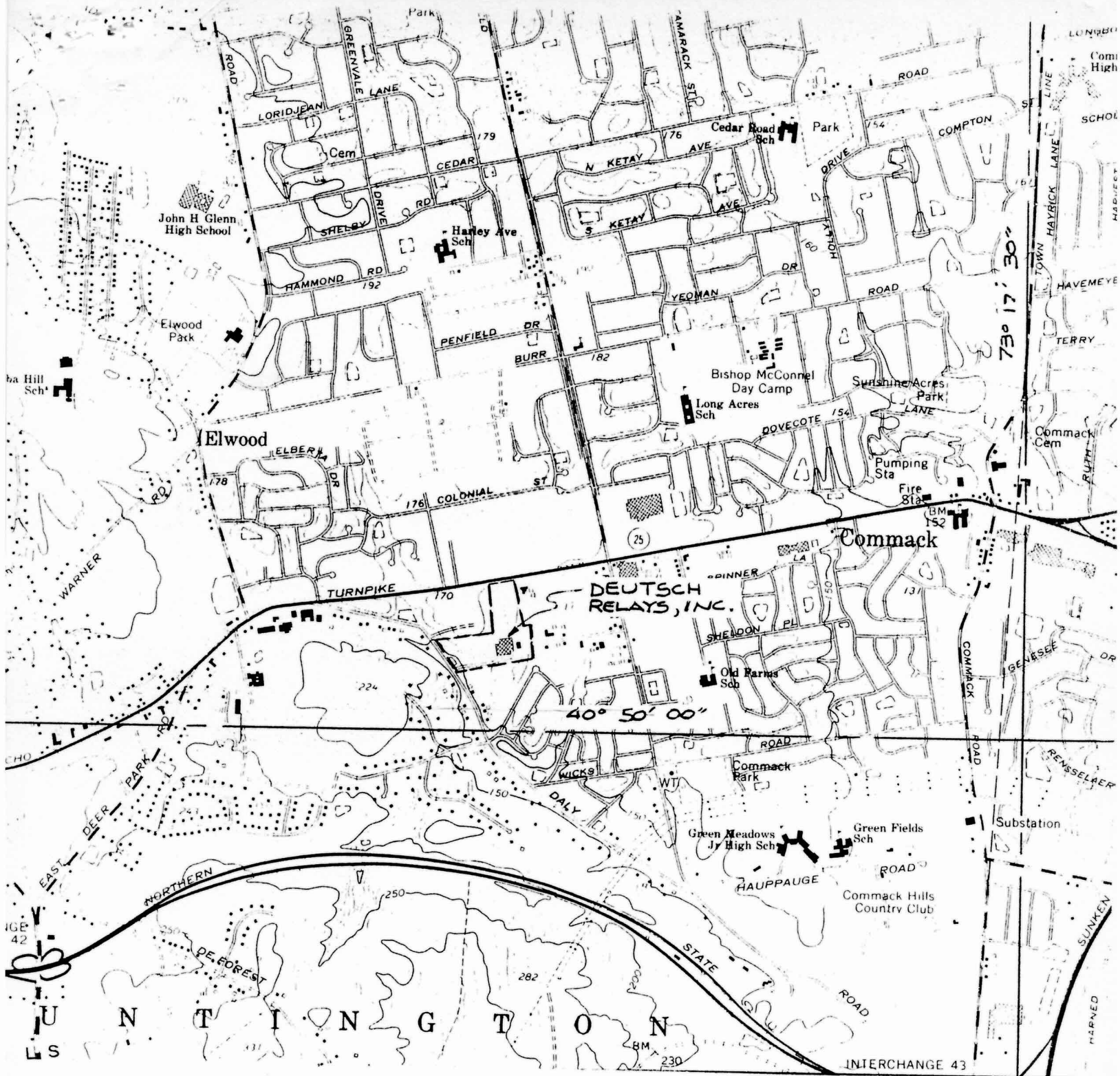
- A) EPA identification number, name and address.
- B) Calendar year for report.
- C) A description and quantity of each hazardous waste the facility received during the year.
- D) The method of treatment, storage or disposal for each hazardous waste.
- E) Groundwater monitoring data (if any).
- F) Latest closure cost estimate.
- G) Certification by owner.

10.4 ADDITIONAL REPORTS

This facility will also submit additional reports to the Commissioner for an event listed below:

- A) A release of hazardous waste, fire or explosion (see Contingency Plan and Emergency Procedures, Section 8.0, for report requirements).
- B) Groundwater contamination and monitoring data.

C) Certification of Facility Closure when closure is complete (see Closure plan for details).



SCALE: 1" = 2000' - 0"

FACILITY LOCATION:

LATITUDE: N 40° 50' 12", LONGITUDE W 73° 19' 10"

TAKEN FROM:

USGS 7.5 MIN. SERIES TOPOGRAPHICAL MAP
GREENLAWN QUADRANGLE, NEW YORK

FOR:

DEUTSCH RELAYS, INC.

BY:

DONNELLY ENGINEERING

DATE NOV 17, 1980

DWG NO. DR-01

